Figure 1

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Inhibition of Reuptake at Monoamine Transporters (K_i ± SEM (nM))

				(A) = DEI(A)	(11/1/)
COMPOUND	ClogP	ClogP	[³H]DA	[³ H]5-HT	[³H]-NE
	'Daytime'	'KowWin'	Uptake	Uptake	Uptake
Cocaine			259 <u>+</u> 19.9	155 ± 0.40	108 ± 3.50
Fluoxetine			4,580 <u>+</u> 550	7.34 <u>+</u> 0.66	167.4 ± 14.86
CTDP 31,181			44.5±8.5	743.5±2.5	102.0±14.0
Me N N Cl JZ-III-46	4.41	4.85	375.7±54.0	238.0±48.8	423.6±53.4
Me					
JZ-III-48	3.15	3.72	80.4±23.3	208.3±46.5	25.0±6.2
ÇH ₃					***************************************
JZ-III-52	2.19	2.84	58.9±18.6	556.9±150.1	38.6±4.9

Figure 2

COMPOUND	ClogP	ClogP	[³H]DA	[³ H]5-HT	[³H]-NE
	'Daytime'	'KowWin'	Uptake	Uptake	Uptake
O-CH ₃ N-	1.30	-	164.0±37.7	2,649±767	14.8±6.1
CH ₃ O O NH ₂ S NH ₂ JZ-III-57	1.46	1.05	209.3±25.1	5,790±1712	177.5±48.5
CH ₃ O O OMe JZ-III-59	1.64	2.58	231.0±93.2	808.5±36.0	53.0±16.3
CH ₃ N N N N N N N N N O N O N O N O N O N	1.87	2.71	85.4±19.3	226.9±6.7	15.1±2.0

Figure 3

COMPOUND	ClogP	ClogP	[³H]DA	[³ H]5-HT	[³H]-NE
ÇH ₃	'Daytime'	'KowWin'	Uptake	Uptake	Uptake
JZ-III-85	1.14	0.92	55.2±7.6	1,795±67	11.6±1.2
CH ₃					
JZ-III-82	0.73	0.24	121.2±31.6	269.9±9.7	70.2±7.2
CH₃ N OH JZ-III-84	2.81	3.21	16.1±4.5	158.0±4.6	0.94±0.27
CH ₃ O CH ₃ O CH ₃ O CH ₃ O CH ₃	3.71	4.21	35.1±10.8	57.1±17.9	3.6±1.5

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Figure 4

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COMPOUND	ClogP 'Daytime'	ClogP 'KowWin'	[³H]DA Uptake	[³H]5-HT Uptake	[³ H]-NE Uptake
JZ-III-87	5.46	5.67	68.3±21.9	6.7±1.5	4.5±1.2
JZ-III-90	4.55	3.53	31.6±12.1	199.3±14.4	17.9±5.8
CH ₃ O CH ₃ O CH ₃ JZ-III-91	2.85	2.07	9.1±2.9	87.1±17.0	29.2±3.8
CH ₃ N S N Me JZ-IV-5	2.29	3.30	13.0±2.6	109.9±44.9	25.2±2.3

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Figure 5

COMPOUND	ClogP	ClogP	[³H]DA	[³ H]5-HT	[³H]-NE
ÇH ₃	'Daytime'	'KowWin'	Uptake	Uptake	Uptake
JZ-IV-7	3.80	4.88	83.3±1.2	4.5±0.8	0.68±0.25
CH ₃ N N N N N N N N N N N N N N N N N N N	3.13	4.21	1.01±0.22	1.12±0.42	0.81±0.12
CH ₃ O O Me N N S N Me JZ-IV-14	0.78	1.51	164.4±27.5	2,033±573	86.2±2.3
CI JZ-IV-15	1.62	2.42	247.7±77.5	472.6±60.0	20.2±2.8

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Figure 6

COMPOUND	ClogP	ClogP	[³H]DA	[³ H]5-HT	[³H]-NE
	'Daytime'	'KowWin'	Uptake	Uptake	Uptake
CH ₃ O O O O O O O O O O O O O O O O O O O	3.08	3.08	378.6±89.7	824.6±99.1 ′	459.8±11.2
CH ₃ CH ₃ CH ₃ CH ₃ N N N N N N N N N N N N N N N N N N N	3.31	4.17	125.7±14.7	220.9±45.6	31.5±9.7
CH ₃	1.56	2.03	1,653±56	1,079±269	217.6±13.9
JZ-IV-22	2.87	3.51	51.0±16.4	13.3±2.9	0.56±0.09

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Figure 7

Compound	ClogP 'Daytime'	ClogP 'KowWin'	[³H]DA Uptake	[³H]5-HT Uptake	[³H]-NE Uptake
CH ₃ N N N N N N NMe ₂ JZ-IV-23	2.89	3.52	116.1±46.1	88.3±21.7	27.2±7.4
H N N S NH ₂	1.75	2.63	113.6±32.1	170.0±5.8	10.0±0.07
CH ₃ O O NMe ₂ JZ-IV-27	2.16	1.72	2,884±654	923.8±138.5	1,249±19
CH ₃ . O S OH JZ-IV-34	1.95	1.07	11.8±1.1	2,183±373	42. 0±16.0

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Figure 8

COMPOUND	ClogP 'Daytime'	ClogP 'KowWin'	[³H]DA Uptake	[³ H]5-HT Uptake	[³H]-NE Uptake
CH ₃ N OMe JZ-IV-35	3.41	3.91	50.2±15.3	190.6±56.8	6.1±1.8
CH ₃ O S OMe	1.76	1.77	14.7±4.6	469.1±36.2	24.7±5.7
JZ-IV-37	0.24	0.84	107.8±29.1	774.9±95.9	31.1±3.4

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Figure 9

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Inhibition of Reuptake at Monoamine Transporters ($K_i \pm SEM (nM)$)

COMPOUND	5-HT/DA	NE/DA	NE/5-HT
Cocaine	0.37	0.20	0.70
Fluoxetine	0.002	0.04	22.8
CTDP 31,181	16.71	2.29	0.14
JZ-III-46	0.63	1.13	1.77
JZ-III-48	2.59	0.31	0.12
JZ-III-52	3.50	0.24	0.07
JZ-III-54-1	16.2	0.09	0.005
JZ-III-57	27.6	0.85	0.03
JZ-III-59	3.5	0.23	0.07
JZ-III-62	2.66	0.18	0.07
JZ-III-85	32.5	0.21	0.001
JZ-III-82	2.23	0.58	0.26
JZ-III-84	9.81	0.06	0.005
JZ-III-86	1.63	0.10	0.06
JZ-III-87	0.10	0.07	0.67
JZ-III-90	6.31	0.57	0.09
JZ-III-91	9.57	3.21	0.34

Figure 10

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COMPOUND	5-HT/DA	NE/DA	NE/5-HT
JZ-IV-5	8.45	1.94	0.23
JZ-IV-7	0.05	0.001	0.15
JZ-IV-10	1.11	0.80	0.72
JZ-IV-14	12.37	0.52	0.04
JZ-IV-15	1.91	0.08	0.04
JZ-IV-16	2.18	1.21	0.56
JZ-IV-17	1.76	0.25	0.14
JZ-IV-21	0.65	0.13	0.20
JZ-IV-22	0.26	0.01	0.04
JZ-IV-23	0.76	0.23	0.31
JZ-IV-25	1.50	0.08	0.06
JZ-IV-27	0.32	0.43	1.35
JZ-IV-34	185	3.56	0.02
JZ-IV-35	3.80	0.12	0.03
JZ-IV-36	31.9	1.68	0.05
JZ-IV-37	7.19	0.29	0.04